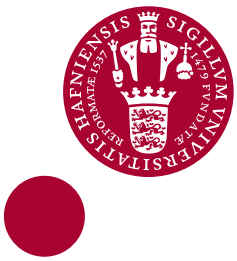

Towards participatory forestry

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While the main purpose of scientific forestry, timber is often of less importance to local communities. Here firewood from a community forest in Nepal. Photo: Jens Friis Lund

Towards participatory forestry

Introduction

This policy brief provides recommendations for policy makers, implementers, funders and educators who engage in efforts to promote participatory forestry that is socially, economically and ecologically sound. The brief is based on a research project focusing on participatory forestry in the contexts of Nepal and Tanzania[1], but the recommendations are of general relevance.

Participatory forestry – ideal and practice

Participatory forestry entails forest governance approaches that involve people living in and around forests and are referred to as decentralized, participatory, joint, and community-based forest management as well as indigenous forestry and social forestry (Lund et al. 2018). Legislated and implemented by governments of many developing countries, often with advisory and financial support from donors, such regimes exhibit great variation in the sharing of rights and responsibilities between various levels of government and rural communities. Participatory forestry emerged in the 1970s,

[1] The research project took place from 2014-18 and involved four PhD studies and 11 faculty members from institutions in Nepal, Tanzania and Denmark doing surveys, ethnographic studies, and desk studies emphasizing forest management practices and discourses in communities, bureaucracies, civil society and educational institutions.
To learn more about the project, visit www.ifro.ku.dk/scifor

and during the 1990s it became the standard approach to forest conservation and management in the developing world.

Much research has documented that, in practice, participatory forestry resembles the standard scientific forestry approach (Lund 2015). Four tenets characterize scientific forestry: (i) an emphasis on timber production, (ii) general assumptions about forest ecology including species composition at the 'mature' state, regeneration processes, and growth rates; (iii) the necessity of forest inventories to determine the condition (degraded, disturbed, mature) of a particular forest and; (iv) the need to divorce forestry from alternative land uses (Hansen & Lund 2017). Accordingly, scientific forestry dictates physical demarcation of forests in the landscape, which in turn demands a more general land-use planning, and inventories that enumerate the species and size classes of trees in the forest. Such situated knowledge about a forest is then fed into forest growth models to forecast how the forest will respond to different management interventions. The result is a time bound forest management plan that pursues specified objectives (usually timber production), associated flows of products and environmental services, and predicts the forest condition in response to specified management interventions. Across the world, national-level objectives of forest conservation and restoration are used to justify that official recognition of community authority over forest resources depends on national forest services' endorsement of rather technical management plans.

Photo: Jens Friis Lund

Our research[1] sought to understand the implications for the participatory ideal of the continued reliance on scientific forestry in participatory forestry reforms, and to understand why and how scientific forestry prevails in these reforms.

How scientific forestry affects participatory forestry reforms

Our findings on the implications of the continuation of scientific forestry in participatory forestry reforms fall under three broad themes: cost, socio-ecological fit, and elite capture and inclusion.

Cost

The implementation of participatory forestry is impeded by the high costs of the technical and bureaucratic procedures that are associated with scientific forestry. In Tanzania, participatory forestry has only spread where donors were willing to cover the costs. In Nepal, this also appears to be the case in most places. Obviously, the high costs – that owe to the planning requirements - hinder implementation of participatory forestry across larger areas. The reliance on scientific forestry also implies high running costs for existing participatory forestry schemes. In Nepal, for instance, thousands of communities have waited several years for management plan renewal, often due to a lack of funding (Basnyat et al. 2018). Hence, forest bureaucrats tend not to perform all the costly prescriptions of scientific community forest management planning but must pretend to do so to fulfil bureaucratic obligations and purposes. Thus, the reliance on scientific forestry – and associated costs – halts real progress in implementation and management, while fueling bureaucratic procedures that force the production of plans and statistics that have little to do with realities on the ground.

Socio-ecological fit

We observed that the scientific framing of participatory forestry emphasizes single-purpose (timber production) forestry. Yet, in practice most forests serve multiple purposes. Thus, the highly

labor-intensive inventory procedures do not yield information of relevance to the majority of local uses (Green & Lund 2015; Toft et al. 2015).
In Nepal, the plan preparation processes gave the impression of formalized rituals, where more emphasis was put on desk work to comply with legal requirements rather than on rigorous forest inventory and consultative processes with forest user groups (Basnyat et al. 2018). Thus, the resulting management prescriptions had little reference to the actual site quality, local uses and management objectives, or forest stand conditions (Baral et al. 2018).

Further, the planning models rely on assumptions of how forests will develop over time (growth models). Yet, since most forests are multi-species and non-equilibrium ecosystems, and species- and site-specific information on growth is usually lacking, most models are grossly underspecified and have little empirical backing. Thus, the apparent precision of forecasting is but a mirage (Hansen & Lund 2017). Finally, we observed that in relation to natural forests and woodlands, the forest management interventions specified in plans (thinnings, firebreak clearing, etc.) are highly labor intensive and are rarely justified by the added value (e.g. thinnings often do not result in a higher-value product) or based on ecological knowledge (e.g. fires are integral to seed germination in some forest ecosystems). Overall, the technical quality of so-called scientific management plans is generally rather poor and the management interventions they prescribe are often expensive and of questionable relevance.

The setting aside of forests from the landscape is a central tenet of scientific forestry. Here a signpost that has remained from Tanzania's colonial past. Photo: Jens Friis Lund

Forest inventory is a key to scientific forestry. Here ocular assessment of basal area in a miombo woodland in Tanzania. Photo: Henrik Meilby

Local, de facto, forest managers, therefore, tend to ignore these management plans and proceed on other terms, implying that the plans are merely legal documents of no technical and management value (Baral et al. 2019; Green & Lund 2015; Toft et al. 2015; Sungusia & Lund 2016).

Elite capture and inclusion
Technical and bureaucratic approaches to forest management demand expertise of the managers, i.e. literacy, numeracy, and knowledge of the procedures of forest management and planning. This tends to promote elite capture through the privileging of certain forms of knowledge that is held by, or actively established, in select institutions or people. The framing of forestry determines what capacities are needed to perform it and can therefore promote or demote inclusion. Furthermore, the detailed regulations imply a need for the technical expertise and legal oversight of the forest bureaucracy, which, in some places, results in rent-seeking (Basnyat et al. 2018).

In sum, we find that the continued reliance on scientific forestry in participatory forestry processes paradoxically reproduces forest management approaches that are not very useful, costly, and impeding local participation.
So, why do these approaches prevail?

Why does scientific forestry prevail?

Our findings on how the approaches and practices of scientific forestry are reproduced in participatory forestry reforms fall under two broad headings.

Political economies of expertise

Donors, technical advisors, forestry academics, and professionals are all part of institutions with political economies. Forest bureaucracies often depend on forest-based revenues. Professional foresters and other experts must justify their salaries, and some engage in rent seeking. Academics have an interest in legitimizing the knowledge they possess to secure their positions (Sungusia 2018). Development agencies and consultancies must continuously promise change and improvement to stay in business (Lund et al. 2017). Together, these institutional political economies and logics tend to maintain technical, complex and bureaucratic framings of forest management.

Educational practices and institutional socialization

Institutions of education also reproduce predominant approaches to forestry. Our research documents that many foresters firmly believe in the scientific forestry approach while acknowledging that it constantly fails to deliver in practice. This paradoxical loyalty to a failing approach appears to originate from the way foresters are trained. Our review of the curriculum and teaching practices in forestry schools shows a tendency to portray scientific forestry as a higher truth, while little to no attention is paid to uncertainty and complex socio-ecologies (Sungusia 2018). This, we believe, constitutes an important explanation for the reproduction of scientific forestry.

What would a more participatory forestry practice look like?

Our research did not aim to develop specific forest management approaches. Yet, our insights show that requirements imposed top-down comprise a challenge for meaningful forest management practiced by local communities. Thus, improvements in management at the community level requires changes at the higher levels of institutional hierarchies. For this reason, our recommendations target these higher levels only.

The recommendations are meant to pave the way for participatory forest governance that (i) takes point of departure in communities' actual objectives and forest uses and (ii) is flexible and adaptable to complex and changing socio-ecologies.

Policy Recommendations

- For educators: curriculum and pedagogy at forestry educational institutions should emphasize: (i) the value and importance of community perspectives; (ii) state-of-the-art with regard to socio-ecological complexity and; (iii) the uncertainty and partiality of all forms of knowledge.
- For legislators: forest legislation should avoid technically demanding and costly procedures for forest management planning, and emphasize communities' control over the planning and management processes.
- For implementers: forest governance approaches should be flexible, incremental and adaptive so they can accommodate different, local management goals and practices, as well as socio-ecological complexity and change.
- For funders: funding priorities should emphasize simple and unbureaucratic framings of participatory forestry because technical and complex approaches tend to legitimize inequitable political economies and elite capture.

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